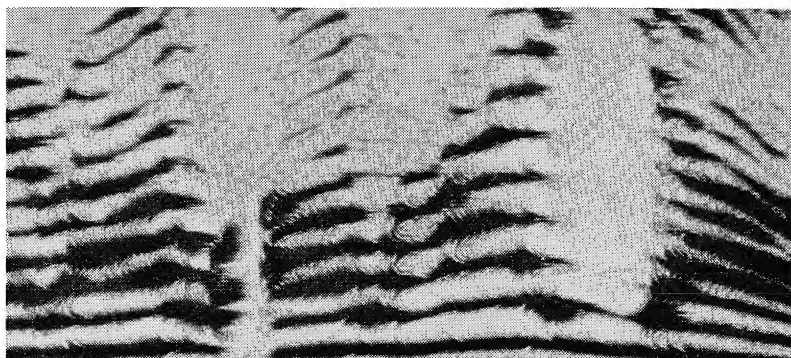
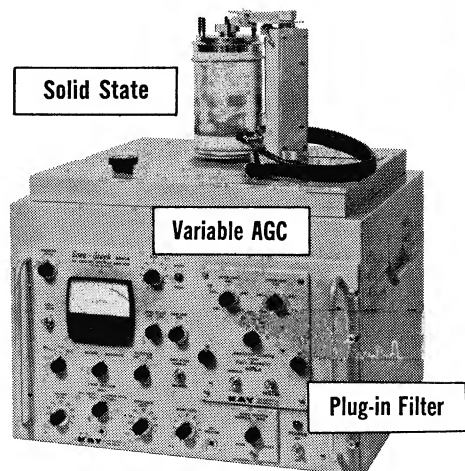


AUDIO SPECTRUM ANALYZERS



Frequency Range	Resolution	Model
5 cps to 4000 cps	2-220 cps	661-A
5 cps to 15000 cps	2-600 cps	675
85 cps to 8000 cps	45 & 300 cps	661-B
85 cps to 12000 cps	45 & 300 cps	662-B
85 cps to 8000 cps	45 & 300 cps Others on request	6061-A

6061-A. Audio spectrum analyzer. An up-to-the-minute solid state adaptation of our 661-B Sona-Graph. It provides the same permanent visual records of Amplitude vs Frequency, Amplitude vs Time, and Frequency vs Time vs Amplitude, BUT in less than ONE-THIRD THE PREVIOUS TIME and with increased clarity.

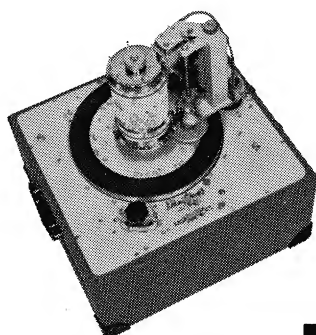
\$2950.00

THE SPECTROGRAPH

661-B. A sound spectrograph which produces permanent, visual records of complex audio-frequency waves and provides three different recorded analyses of these waves. The first of these analyses relates frequency and intensity to time; the second relates intensity to frequency at any selected time; the third relates the average available amplitude to time.

The visual records which contain the analyses of the recorded waves are made on non-photographic, current-sensitive, facsimile-type paper.

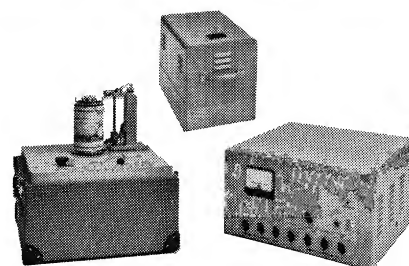
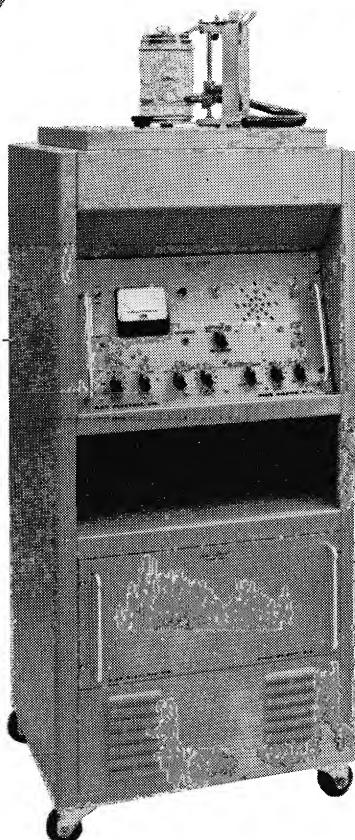
\$2550.00



662-B. 85-12,000 cps. Easily stored, permanent or re-usable magnetic disc recording.

The 662-B is an audio spectrograph for sound and vibration analysis. Unit provides four permanent, storable records of any sample of audio energy in the 85-12,000 cps range.

\$2950.00



675. Two separate channels for simultaneous recording of two signals.

Remote control of recording and reproducing channel selectors.

The 675 is a wider range spectrum analyzer providing two identical channels for simultaneous recording of two related signals. (e.g. timing pulses). Built-in fast acting relays permit rapid automatic remote control.

\$2950.00

651-A. An audio and sub-audio spectrograph in the 5-4400 cps range makes three permanent visual records.

Frequency Range: 5-4400 cps in 3 bands.

Frequency Calibration: Markers at 30 cps or 240 cps intervals may be recorded on analysis paper.

Record-Reproduce Amplifier Characteristics: Frequency response suitable to provide FLAT (or for transducer usage) 44 or 60 db falling characteristic.

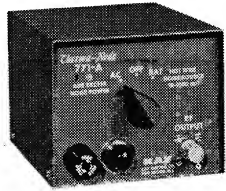
Input Impedance: High, 1.8 megohms.

Input Signal Sensitivity: Approximately 3 mv rms for full scale operation.

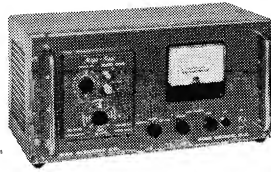
\$2495.00

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.

KAY NOISE GENERATORS 1 KC to 26.5 GC



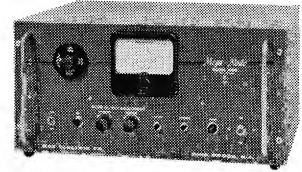
771-A. 1 kc to 1 kmc heated element noise source.
\$250.00



240-B. 5 mc to 220 mc calibrated (variable) noise generator.
\$375.00



403-A. 3 to 500 mc calibrated (variable) noise source.
\$375.00



780. 1 mc to 3000 mc calibrated (variable) noise generator.
\$790.00

Frequency Range	Noise Range	Cat. No.	Type
1 Kc to 20 Mc	Sufficient to provide 10 db	770-A	Heated element
10 Mc to 1000 Mc		771-A	
10 Mc to 26.5 Gc	0-15.8 db	792-A	Automatic Noise Figure Meter
3-500 Mc	0-19 db	403-A	Noise Diode
5-220 Mc	0-23.8	240-B	Variable Impedance Diode
400 Mc to 26.5 Gc	18 15.8, 15-45, db	260	Argon, Neon Fluor, Waveguide
1 Mc to 3 Gc	0-20 db variable	780	Noise Diode

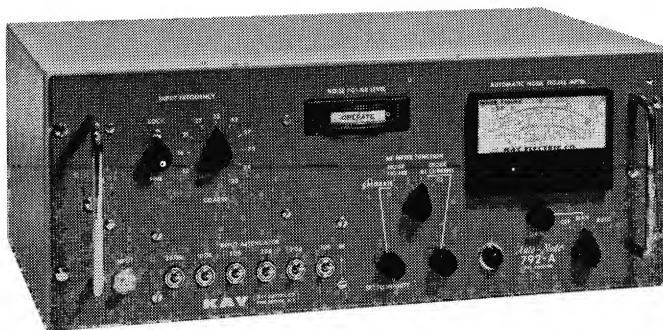


RG-48/U - 53/U. 400 mc to 26,500 mc argon, neon and fluorescent waveguide noise sources.
\$175.00 - \$250.00



NM-781. 50 ohm argon coax. 400-4000 mc.
\$325.00

AUTOMATIC NOISE FIGURE METER

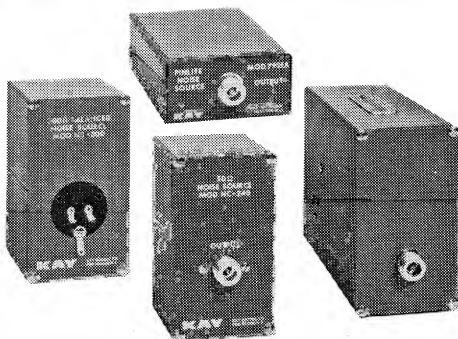


792-A. Tuned input amplifier is continuously variable from 10 to 120 mc to give quick and easy operation with almost all receivers. External, hot wire noise source gives low VSWR from 10 to 900 mc, and precisely known noise output, so that over-all system accuracy is less than ± 0.5 db.

The 792-A offers variable impedance and balanced outputs, provides complete measurements up to 26.5 gc. It offers carefully metered noise figure ranges of 5 to 30 db for waveguide and diode sources; 0 to 20 db for hot wire and diode sources. Infinity is marked. *Either 6 db or 15.2 db excess noise can be selected for maximum accuracy at either high or low noise figures.*

The 792-A offers a wide operating range of input noise levels, 75 dbm to 0 dbm for a nominal 1.0 mc bandwidth. It requires only 33 db of external gain between its IF input and its lowest output noise source. Switched, panel-controlled attenuation of 41 db in one db steps and a highly effective AGC with a dynamic range of 40 db are provided. May also be used in manual mode.
\$695.00

The 792-AFE includes 10-900 mc noise source and full scale 0-4 db meter for greater readability.
\$890.00



RG-48/U - 53/U Noise Heads. Argon Waveguide noise sources
\$195. - \$275.00

Pulsing Argon Supply **\$150.00**

Diode Pulser Supply **\$110.00**

NM-781 Noise Head. 50 ohm coax covers full 4000 mc UHF range
\$325.00

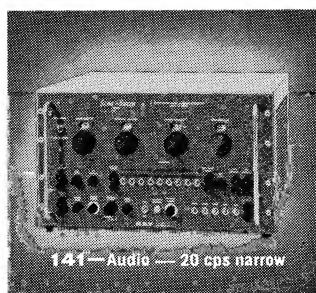
7921-A Noise Head. Hot wire noise source from 10 to 1000 mc
\$95.00

NB-300 Noise Head. Balanced 300 ohm output covers FM and TV frequencies
\$135.00

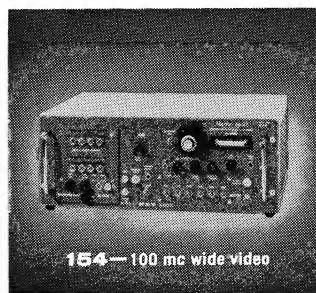
NC-240 Noise Head. Selected impedance output covers IF-VHF
\$95.00

All prices are net f.o.b. Pine Brook, N. J.

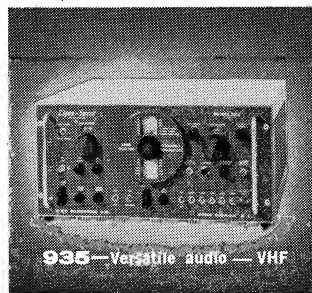
KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.



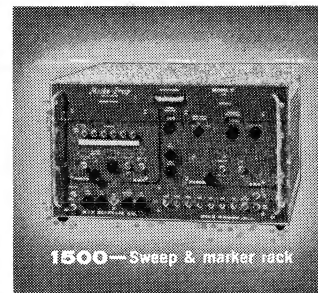
141—Audio — 20 cps narrow



154—100 mc wide video



935—Versatile Audio — VHF

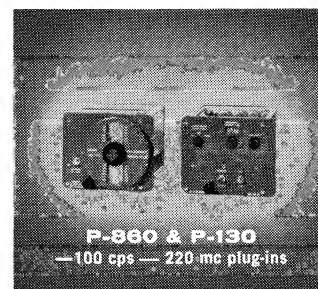


1500—Sweep & marker rack

BASIC PLUG-IN RACK

1500. A high performance electronic sweeping oscillator and multi-marking frequency pip generator given wide-ranging frequency and a far-reaching field of applications by the use of plug-in oscillator and marker heads. A variety of general purpose and special purpose plug-in heads can be supplied.

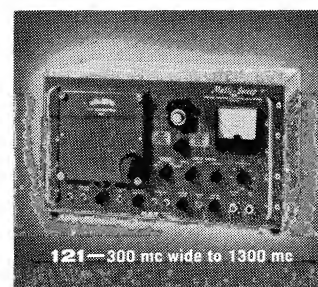
It contains a variable, sawtooth sweep generator, a fast-acting AGC, frequency-marker control and output circuits, RF output circuits with precision attenuators, a calibrated output meter, an accurate RF detector, and carefully regulated power supplies.



P-960 & P-130
— 100 cps — 220 mc plug-ins

PULSE MARKERS

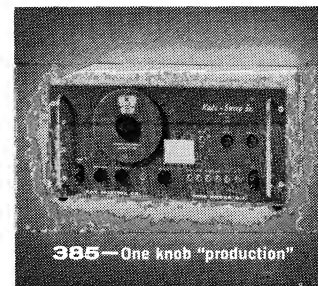
Sharp, pulse-type frequency pips are available at a separate output. These are fed independently to the oscilloscope, are completely isolated, cannot overload the test circuit and appear in traps and along the base line. These markers are sharp and clean and their width is a controlled fractional percentage of total scope deflection. Neither marker width nor marker shape are affected by changes in frequency sweep. They provide the same, excellent sharp pulse indicators on a narrow sweep as on a wide sweep.



121—300 mc wide to 1300 mc

Frequency Range	Model No.	Sweep Width	Frequency Marks	
500 Kc-1050 Mc	121-C with P-122-A	50 Kc-300 Mc	Harmonic and External Variable	\$1295.00*
900 Mc-1300 Mc		500 Kc-400 Mc		335.00
100 Mc-1000 Mc	1400	up to 500 Mc	3 Pulse	895.00*
1 Mc-300 Mc	159-B	200 Kc-300 Mc	8 Pulse External Variable	895.00*
1 Mc-350 Mc	386-A	10 Kc-60 Mc	30 Pulse	925.00*
4 Mc-120 Mc	866-A	50 Kc-30 Mc	11 Pulse Variable	950.00*
10 Mc-145 Mc	865-A	50 Kc-30 Mc	11 Pulse Variable	950.00*
20Mc-40Mc 50Mc-70Mc	380-A	3 Mc, 20 Mc	9 Pulse and External Variable	495.00

*Plus Markers



385—One knob "production"

121-C. A new-generation, wide-sweep oscillator and frequency marker, solidly based on proven solid-state devices to give sweeps more than 300 mc wide from 0.5 to 1300 mc. The P-122-A replaceable rf head provides the 1050 to 1300 mc output.

It operates with the high standard performance of its electronic sweep techniques, delivers 0.5 volts rms into load — after a built-in attenuator — with excellent flatness and waveshape. It provides flat, wide sweeps and stable narrow sweeps; linear frequency output, agc'd rf level, and a frequency marker system. Harmonic marks at 1, 10 and 100 mc and circuits

for an externally controlled variable marker are provided. The unit may be swept at repetition rates above 20 kc. A direct-reading 0-300 mc digital frequency dial provides fine-touch, smooth vernier, center frequency control and remarkable vernier frequency adjustment for narrow sweep operation over the entire range of the 121-B.

In this way, it adapts this wide-sweep to excellent use as an IF through UHF oscillator with continuously variable center frequency and sweep width. The electronic frequency modulation eliminates the microphonics, instability and frequency breakdowns of mechanical sweeps.

385-A. Wide-range, electronic sweeping oscillators, with center frequencies and marker frequencies furnished as specified by the customer. The range is covered in six or twelve switched bands. Fundamental frequency sweeps on all bands assure stable operation, is free of spurious outputs. A wide range of pulse-type, crystal-controlled frequency markers can be furnished, are automatically switched-in singly or in groups of three or more for each band. Fast-acting age circuits insure high stability and accuracy. The 385 & 386 are functionally designed with a minimum of controls, for production use.

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.

SWEEP AND MARKER GENERATORS

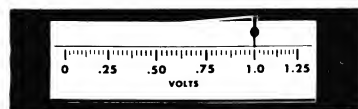
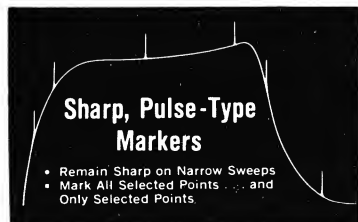
141-D. Adapts the accepted techniques of r-f swept frequency alignment to audio and ultrasonic (e.g., tape recorder) bandpass measurement and adjustments. In addition, the highly stable response curve developed by the 141-D and the parallel display provided by its manual control, give easier, more accurate checks of high-Q filters and sharp slope devices.

The 141-D provides a complete measurement system, including—logarithmic, linear and manual sweeps, or a calibrated c-w signal; sharp "crystal", pulse-type frequency markers and precision step attenuator.

154-A. All solid-state, electronic unit extends the range of video sweeps to a full 100 mc. At the same time, it maintains the low frequency end to give 100 mc to less than 50 kc in a single sweep display. The output voltage is a high 1 v rms into load and held extremely flat to ± 0.25 db.

Plug-in marker systems offer crystal plug-in pulse markers, a variable marker provision and harmonic markers. Marker heads are easily changed or added. An added useful feature of this type of electronic sweep provides for external modulation from dc to more than 15 kc.

935-B. Makes maximum use of both fundamental and beat techniques. The beat-frequency system provides effective frequency coverage in a single continuous display, from 10 mc down to 1 kc in one wide video sweep. For high-frequency work, 9 bands, at fundamental frequencies, provide wide, stable sweeps from 10 to 220 mc. At the low end, an audio sweep oscillator from 50 to 20,000 cps is available. 7 narrow, highly stable, fixed bands between 20 kc and 12 mc may be specified by the customer. Three video bands provide selected deviation-vs-stability for optimized wide and narrow sweeps.



High, Flat Output: 1.0v rms

Frequency Range	Model No.	Sweep Width	Frequency Marks	
20 Cps-200 Kc	141-D	20 Cps-200 Kc	10 Pulse	\$1295.00*
50 Kc-8.0 Mc	151-A	8 Mc	Fixed & Var.	795.00
50 Kc-20 Mc	150-B	5, 10, 20 Mc	6 Pulse External Variable	595.00
50 Kc-100 Mc	154-A	50 Kc-100 Mc	8 Pulse or OSC. External Variable	895.00*
100 Kc-150 Mc	932-B	100 Kc-20 Mc	18 Pulse	825.00
50 Cps-220 Mc	935-B	50 Cps-30 Mc	7 Pulse External Variable	1295.00*
10 Kc-220 Mc	7630-A	Marker Only	40 Pulse	425.00*

*Plus Markers

TYPICAL PLUG-INS

P-130-E. A 100 cps to 2 mc sweeping oscillator designed for stable operation as a narrow band unit capable of sweeping filters only a few kilocycles wide and also capable of sweeping its full 2 mc bandwidth to cover tape applications and broadcast receivers. Excellent narrow sweeps, stable output amplitude, and extremely low drift, and extremely low residual FM provide for superior narrow sweep capabilities.

PM-932. A 31 marker, 2 to 220 mc frequency pip generator providing the forming and control circuits for up to 30 sharp pulse type marks and a variable pip mark. The markers are available in six groups of 5 markers selected by a panel control.

PM-7631. 10 Kc to 2.0 Mc, multi-frequency, pip generator providing forming and control circuits for six sharp pulse-type markers. Each marker is individually controlled.

P-860. A general purpose sweeping oscillator providing high-level fundamental frequency output continuously from 2 to 220 mc. The RF output is held constant by a fast acting AGC response circuit and is fundamental frequency, assuring excellent waveshape and the complete absence of spurious products.

PM-861. Harmonic Marker Plug-in for the 1500 rack.

P-141. A 20 cps to 200 Kc ultra stable sweeping oscillator with low distortion. Residual FM less than 5 cps. Maximum sweep width up to 20 Kc for sweeping the entire audio spectrum as well as very narrow filters. Distortion less than 3%.

P-855. 2-35 mc sweeping oscillator designed for ultra stable narrow band operation at fundamental frequency to cover crystal filter applications having sharp rise and decay times. Residual FM and frequency drift are extremely low for excellent narrow sweep capabilities. Output AGC controlled and blanked during retrace at least 80 db down for use with log amplifiers.

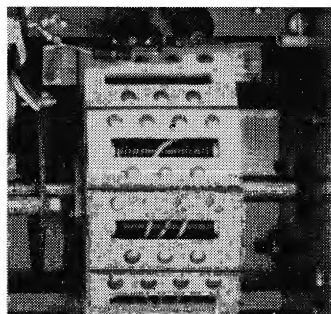
BASIC PLUG-IN UNITS

1500	Accepts sweep & marker plug-ins listed below	\$565.00
860E	Accepts only sweep osc. heads listed below	450.00

PLUG-IN SWEEP & FREQUENCY MARKER HEADS

Model	Center Freq.	Sweep Width		Model	Freq. Marker	
P-130	100 Cps-2 Mc	200 Cps-2 Mc	\$375.	PM-7631	6 Pulse + Ext.	\$150.00*
P-860	2-220 Mc	10 Kc-30 Mc	445.	PM-932	30 Pulse	150.00*
P-867	220-470 Mc	20 Kc-30 Mc	200.	PM-861	Harmonic	150.00*
P-123	100-1 Kmc	Octave	335.			
P-855	2-32 Mc	20 cps-800 Kc	595.			

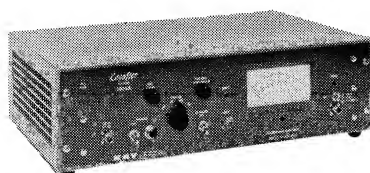
*Plus Markers



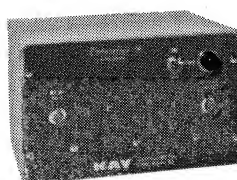
Turret assembly — plug-in Teflon band inserts, solid silver contacts.

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.

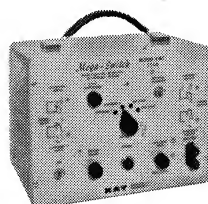
SWEEP SUPPORT UNITS



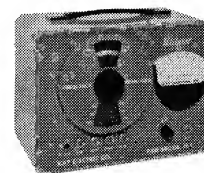
1025-B. Gives overall response, and at the same time gives detailed, easily seen measurements of points on the curve as far down as 80 db. The unit permits highly accurate viewing of the skirts and sharp slopes of band pass filters, single side-band filters, traps, etc. A control gives expansion of the top critical points simultaneously with the log display. 80 db log range, also available as undetected RF signal.



1024-A. Provides a flat 30 db of gain ($\pm .5$ db) from 500 cps to 300 mc. With its low noise and excellent pulse response, the 1024-A provides amplification in a small, low-power unit. All solid-state circuits.



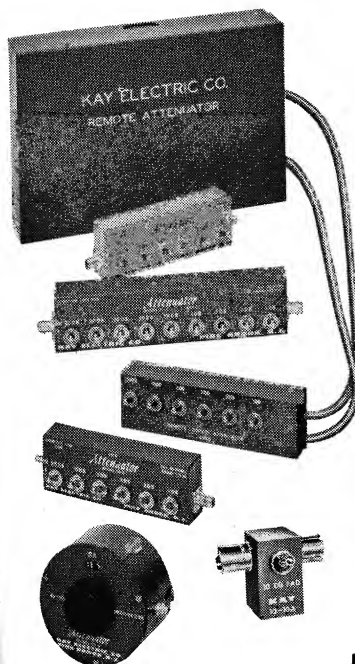
255-B. A high frequency DP-DT coaxial switch whose rate of switching is set by an internal generator locked to an external sync. A phase shift control varies the start of the switch action. SWR 1.15 at 500 mc.



990-A. A small compact oscillator covering 4.5 to 220 mc in six ranges. High level output is held constant to ± 0.5 db by agc. Includes a built-in precision step attenuator and output meter.

Description	Model No.	Frequency Range		
Logarithmic Amplifier	1025-B	20 Kc-220 Mc	.5 v in, 80 db	\$795.00
Wide-Band Linear Amplifier	1024-A	200 Cps-300 Mc	1.5 ns Rise Time	295.00
Sweep Synchronized Coax Switch	255-B	Dc-1000Mc	Crosstalk—70 db at 200 mc	245.00
Frequency Marker-Oscillator	990-A	4.5 Mc-220 Mc	1.0 v, 50 ohms	373.00

ATTENUATORS



Attenuation	Series No.	Steps	Impedance	Type			
0-22.1 db	70	0.1 db	50,70,90	DC-1000 Mc in-line toggle	\$95.00		
0-41 db	20-0	1 db			50,70	DC-1300 Mc Rotary	65.00
10-51 db	20						70.00
0-1 db	60	.1 db	50,70	DC-1300 Mc Rotary	79.00		
0-60 db		10 db					
0-101 db	30	1 db	50,70,90	DC-1000 Mc in-line	90.00		
0-101 db	Miniature				110.00		
0-99 db	50			DC-1000 Mc Rotary	225.00		
0-119 db	40				250.00		
Any value to 20 db	10-10A	1 Step	50,70	INDIVIDUAL SWITCHED PAD	39.00		

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.

SPECIALIZED RADIO & TV GENERATORS

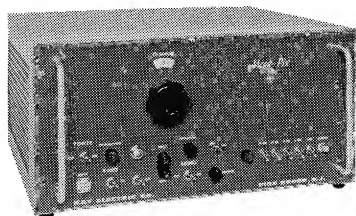
Sweep & Marker Generators

Range	Model	
Video	151-A	\$795.00*
AM, FM, VHF	932-A	825.00*
TV - IF	370-A	495.00*
AM - FM	386-AR	1250.00
VHF Channels + IF	361-C	845.00
UHF Channels	1483-A	845.00

TV Sound-Picture Generators

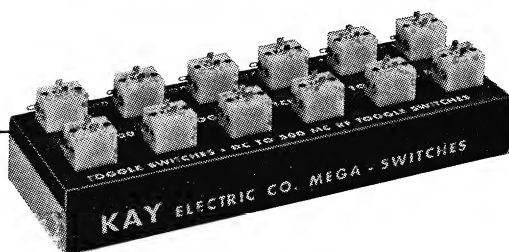
VHF Channels	391-A	\$995.00
Single VHF Channel	392-A	595.00

*Plus Markers



TV MODULATOR

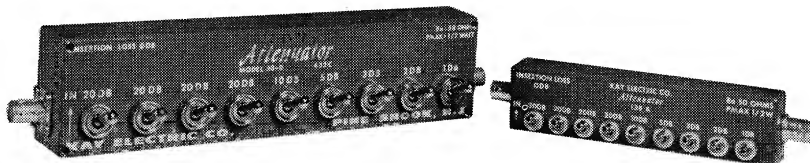
391-A. Standard video provides modulated carrier on each of the 12 channels. Audio fed FM carrier on each channel. Separate, crystal controlled carriers.



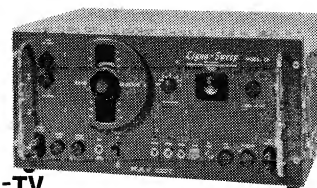
In-Line Units

Insert an accurate and fixed amount of loss in circuits operating in the d-c to 1000-mc range. Attenuation is controlled by field-proven high-frequency toggle switches. Solid silver contacts set in Teflon for low-loss and superior match are employed throughout. The resistors are 1%—tolerance carbon film resistors. The maximum total error is very low and incidental insertion loss is negligible.

Insertion Loss: Zero db at low frequencies: approx. 0.6 db at 1000 mc. Max. total error (including insertion loss): 0.5 db at 250 mc; 0.9 db from 250 to 500 mc; 1.2 db from 500 to 1000 mc (for 50 ohm unit). Better accuracy at lower frequencies and/or using fewer attenuation steps.

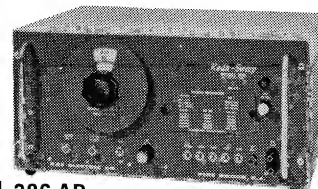


VSWR: 1.2:1 max. up to 250 mc, 1.5:1 max. from 250 to 1000 mc (50 ohm units), 1.3:1 max. up to 250 mc, 1.5:1 max. from 250 to 500 mc (70 or 90 ohms). Maximum Power: 1 watt.



AM-FM-TV

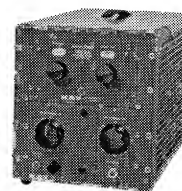
932-A. 100 kc to 220 mc. Sweep & marker unit. 100 kc to 12 mc Video. FM-IF and RF Bands. TV-IF & VHF Channels. 18 Pulse-type markers.



AM-FM 386-AR

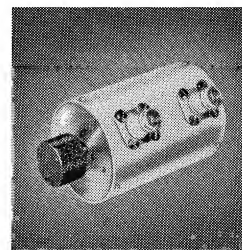
Band	Frequency	Sweep
AM IF	455 Kc	60 Kc
FM IF	10.7 Mc	400 Kc
AM RF	1100 Kc	1200 Kc
FM RF1	98 Mc	24 Mc
FM RF2	98 Mc	24 Mc

20 Pulse Markers

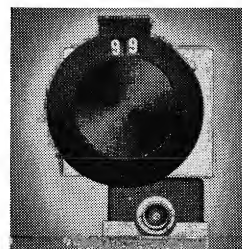


UHF-TV

1483-A. Electronic wide sweep covers 480 mc in sweep at fundamental frequency or centers narrow sweep on any UHF channel. Crystal markers & remote control.



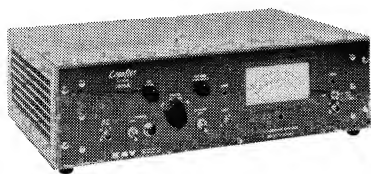
60 Series. Compact Rotary. 60 db unit has maximum error of ± 0.5 db at 1000 mc, VSWR less than 1.3. 10 db unit has maximum of ± 0.3 , VSWR of 1.4.



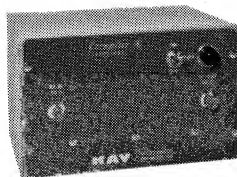
50 Series. Direct reading digital dial for production test fixtures. In-line specs.

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.

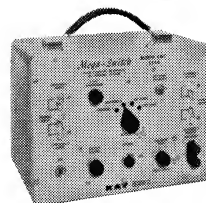
SWEEP SUPPORT UNITS



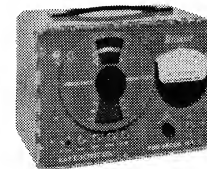
1025-B. Gives overall response, and at the same time gives detailed, easily seen measurements of points on the curve as far down as 80 db. The unit permits highly accurate viewing of the skirts and sharp slopes of band pass filters, single side-band filters, traps, etc. A control gives expansion of the top critical points simultaneously with the log display. 80 db log range, also available as undetected RF signal.



1024-A. Provides a flat 30 db of gain ($\pm .5$ db) from 500 cps to 300 mc. With its low noise and excellent pulse response, the 1024-A provides amplification in a small, low-power unit. All solid-state circuits.



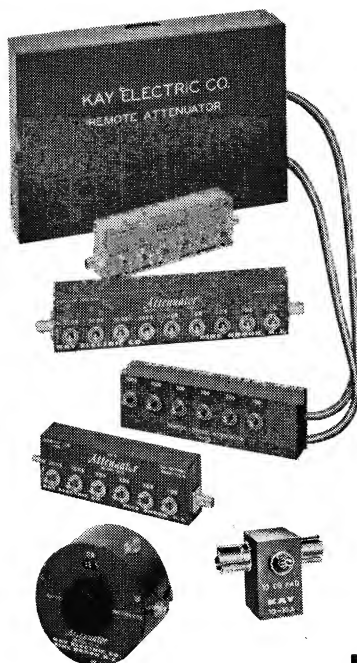
255-B. A high frequency DP-DT coaxial switch whose rate of switching is set by an internal generator locked to an external sync. A phase shift control varies the start of the switch action. SWR 1.15 at 500 mc.



990-A. A small compact oscillator covering 4.5 to 220 mc in six ranges. High level output is held constant to ± 0.5 db by age. Includes a built-in precision step attenuator and output meter.

Description	Model No.	Frequency Range		
Logarithmic Amplifier	1025-B	20 Kc-220 Mc	.5 v in, 80 db	\$795.00
Wide-Band Linear Amplifier	1024-A	200 Cps-300 Mc	1.5 ns Rise Time	295.00
Sweep Synchronized Coax Switch	255-B	Dc-1000Mc	Crosstalk—70 db at 200 mc	245.00
Frequency Marker-Oscillator	990-A	4.5 Mc-220 Mc	1.0 v, 50 ohms	373.00

ATTENUATORS



Attenuation	Series No.	Steps	Impedance	Type	
0-22.1 db	70	0.1 db	50,70,90	DC-1000 Mc in-line toggle	\$95.00
0-41 db	20-0	1 db			65.00
10-51 db	20				
0-1 db	60	.1 db	50,70	DC-1300 Mc Rotary	79.00
0-60 db		10 db			
0-101 db	30	1 db	50,70,90	DC-1000 Mc in-line	90.00
0-101 db	Miniature				110.00
0-99 db	50			DC-1000 Mc Rotary	225.00
0-119 db	40				250.00
Any value to 20 db	10-10A	1 Step	50,70	INDIVIDUAL SWITCHED PAD	39.00

KAY ELECTRIC COMPANY
PINE BROOK, MORRIS COUNTY, N.J.